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AFRL scientists net Presidential Rank Awards

by Nahaku McFadden, Air Force Office of Scientific Research and AFMC News Service

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Four Air Force Research Laboratory people were awarded 2003 Presidential Rank Awards April 21, putting them in the top 5 percent of senior civilian executives in all of government.

Each year the President of the United States recognizes and celebrates a small group of career senior executives' long-term accomplishments with this award. The selectees were each nominated by the head of their respective agency.

Nominees were Dr. Robert Fugate Dr. William Baker, Dr. Herbert Carlson Jr., and Dr. Alan Garscadden.

A board of private citizens evaluated the nominees based on their leadership and noted results. President George W. Bush approved the final list.

There are two categories of rank awards: distinguished and meritorious. The distinguished rank is limited to 1 percent of the career senior executive service, defense intelligence SES, scientific and professional and senior level civilians government-wide. The meritorious executive award is limited to 5 percent of that population.

Dr. Fugate, AFRL Directed Energy Directorate's senior scientist for atmospheric compensation, was nominated in the Distinguished Senior Professional category for his research efforts that have enabled revolutionary new military and scientific applications of

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Four Air Force Research Laboratory scientists received U.S. Air Force Presidential Rank Awards in ceremonies April 21 at Arlington Cemetery, Women's Memorial in Washington, D.C. Award winners from left are, Dr. Herbert Carlson Jr., Dr. Robert Fugate, Dr. William Baker and Dr. Alan Garscadden. (Air Force photo by Nahaku McFadden)

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VA develops corporate process management tool

by 2nd Lt. Dave Smart and Melissa Withrow, Air Vehicles Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The Air Force Research Laboratory's Air Vehicles Directorate (VA) has developed and implemented the Air Vehicles Enterprise System (VAES) to facilitate management of VA's corporate processes.

The system provides tools for configuration management, dynamic roadmap generation, and conducting laboratory management reviews (LMRs). Additionally, VAES provides a two-level program/project structure, a job order number coding system, and reporting to the Defense Technology Information Center (DTIC).

Configuration management tracks and records all program changes and ensures accurate current year total obligation authority. This tool is instrumental in helping finance ensure VA does not over-commit appropriated funds. Dynamic roadmap capability helps ensure VA stays on the critical path to warfighter needs. This tool has been used to brief stakeholders on over 200 programs graphically displayed on seven major roadmaps. Automating LMRs eliminates paperwork, decreases the engineer's workload, standardizes the review format, and provides a historical record of all reviews. Providing a two-level structure and JON coding system facilitated financial tracking of VA's research efforts and saved valuable man-hours. Finally, VAES reporting to DTIC eliminated the need for the previous system — A Science and Technology Action Report System (ASTARS). Using VAES for DTIC reporting has dramatically increased the directorate's reporting accuracy, which reduces DoD-wide research effort duplication.

In the past, VA's program managers used ASTARS to capture program/project information and send that information DTIC. VAES now provides that reporting as well as collecting and managing data to facilitate corporate processes such as lab management reviews, investment strategy, and strategic planning. Currently, AFRL is developing a new set of tools to fully integrate its business processes. These processes are being designed to establish common business practices, data definitions and tools across the laboratory.

In the interim, the Air Vehicles Directorate has employed VAES to collect and manage all corporate data, such as a program's technology and funding. Use of VAES has increased reporting efficiency and facilitated corporate processes. Despite excellent results so far, the directorate is constantly seeking ways to improve VAES. A user group is also assisting in improving existing processes and identifying future VAES additions. **@**

IF holds ribbon-cutting ceremony for new research facility

by Francis L. Crumb, Information Directorate

ROME, N.Y. — Commander Gen. Gregory S. Martin, Air Force Materiel Command, joined a host of local officials and dignitaries Apr. 23, in ribbon-cutting ceremonies for the new Air Force Research Laboratory's Information Directorate Research Facility.

The 105,000-square-foot facility is the centerpiece of a $24.8 million program that also included modification to an existing adjacent building and site enhancements. New York State was given Congressional approval to provide $12 million toward construction costs. The Air Force funded the remaining $12.8 million.

"The construction of these new facilities, like the Research Lab in Rome, spurs technological growth and helps enhance the morale of our workforce," said General Martin. "Thanks to the supports from the State of New York, the new Rome lab will provide a fertile environment for innovation for years to come."

"Today's ceremony signifies much more than just the opening of a new building," said New York Gov. George Pataki. "It symbolizes the culmination of a partnership between New York State and the Air Force, and it underscores our commitment to secure Rome's foothold in the sector of national defense."

"As a result of the events on Sept. 11, 2001, security and defense have become our nation's highest priorities," said Gov. Pataki. "It would be a great understatement to say that we appreciate the work that the people of the Rome Research Site provide to our troops, the intelligence community, and law enforcement officials in Iraq, Afghanistan, and even at home. We stand behind you in your efforts and are proud of the crucial defense technologies being created right here in Rome, New York."

"Information is the key to winning the war on terror," said Sen. Charles E. Schumer, D-N.Y. "You are doing cutting-edge technology that will make all Americans safer."

The facility will house more than 300 government employees and contractors and will consolidate the directorate's technical divisions into a single complex, including the adjacent existing building. This consolidation will enhance collaboration among the directorate's scientists and engineers and provide the most current state-of-the-art research environment.

"This new state-of-the-art facility will enable us to conduct cutting-edge research for the Air Force and Department of Defense," said Raymond P. Urtz, director of the Information Directorate. "The new complex represents the latest innovation at the Rome Research Site campus and it will be a catalyst for future development within the Griffiss Business and Technology Park."

Atkins Benham Constructors of Oklahoma City, Okla., was awarded a $19,698,968 contract in September 2001 for construction of the facility. The Naval Facilities Engineering Command, Philadelphia, Pa., was responsible for administering the construction.

The facility was selected for the Honor Award in the Concept Design Category in the 2004 AFMC Design Awards. The award is the highest presented by the command in a program intended to promote quality design. The program encourages award-winning efforts by recognizing individual designers and architect-engineering firms who, in their work, display a high level of creativity while producing cost-efficient, energy-conscious facilities compatible to their environment and meeting user needs and expectations. **@**

General Gregory S. Martin at the ribbon-cutting ceremony for the Information Directorate Research Facility, April 23.

'Books for Baghdad' drive successful in Rome

by Francis L. Crumb, Information Directorate

ROME, N.Y. — The Company Grade Officer's Council (CGOC) at the Air Force Research Laboratory's Rome Research Site is sending a text message to Baghdad University.

Nearly 5,000 books, predominantly textbooks and university-level literature, have been amassed from AFRL personnel and community donators since the project was instituted earlier this year.

"I was listening to the radio on the way to work back in mid-January and I heard a report on Baghdad University," said 2nd Lt. Scott J. Robertson, CGOC project manager. "It talked of how the students of Baghdad University were in the process of taking finals at the end of the first year of classes since Operation Iraqi Freedom, but were somewhat despondent about the quality of their education due to the lack of books."

The project was initiated in early February with donation boxes placed in the lobbies of four AFRL buildings. It was expanded in March to Rome Free Academy at the Griffiss Business & Technology Park and community sites at the Church of Jesus Christ of Latter-day Saints and the First Presbyterian Church of Rome.

A team of about 15 military and civilian personnel plan to have the books sorted and packed by the end of the month. @

Proteus aircraft concludes tests on attached target board

by Ken Englade, Directed Energy Directorate

KIRTLAND AIR FORCE BASE, N.M. — The Proteus, a one-of-a-kind aircraft built by Scaled Composites LLC of Mojave, Calif., flew into Kirtland Air Force Base April 28.

The aircraft was in New Mexico concluding a series of tests designed to prove the effectiveness of the unique target board attached to its underside. The Proteus will play a vital role in future tests of the Airborne Laser, a Missile Defense Agency asset which will help protect the United States and its allies from hostile missile attack. Three of the lasers used by ABL will be fired at the target board to demonstrate accuracy and performance, an important test series leading to the shootdown of a scud-like missile.

The Proteus flew a series of missions over White Sands Missile Range in the southern part of the state, during which laser beams fired from 8,000-foot-high North Oscura Peak registered against special sensors embedded in the missile-shaped target board. The Air Force Research Laboratory's Directed Energy Directorate operates North Oscura Peak and assisted in the tests. **@**

ML Director receives recognition for role in diversity

by Timothy R. Anderl, Materials and Manufacturing Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Dr. Charles E. Browning, director of the Air Force Research Laboratory's Materials and Manufacturing Directorate, received the Dayton Intergovernmental Equal Employment Opportunity Council's (DIEEOC) Charles Crawford Jr. Executive Manager of The Year Award on April 29. Browning was presented the award for his leadership in promoting diversity and equal employment opportunity within the Air Force science and technology workforce.

Dr. Browning is responsible for planning and executing the Air Force's advanced materials, processes, manufacturing and environmental technology programs. During his tenure, the directorate has established several educational partnership agreements with area Historically Black Colleges and Universities (HBCUs).

According to his nomination, which was written by AFRL Commander Major General Paul D. Nielsen, "Dr. Browning's commitment to HBCU/Minority Institutions and minorities has been truly demonstrated by a visionary management style whereby he pushed collaborations with these colleges and universities throughout ML, AFRL and AFMC before these types of efforts were widely pursued. By forging a trail for others to follow with his time, funding and organization resources, the HBCU/MIs, their students and the Air Force will greatly benefit for years to come."

Dr. Charles E. Browning

Dr. Browning initiated a collaboration program with HBCUs in November 2000, which was designed to identify, characterize and select the HBCUs with the best materials and manufacturing research and development capabilities and to provide the directorate early access to science and engineering graduates from HBCUs. According to General Nielsen, this effort has resulted in funding for research and development projects at HBCUs, new Educational Partnership Agreements (EPAs) with HBCUs, providing HBCU faculty and students summer employment, providing full-time employment for HBCU graduates, and assigning ML researchers to teach at HBCUs.

Dr. Browning has signed EPAs with Fisk, Tuskegee, and Wilberforce Universities, and an EPA is currently pending with Florida A&M University. He also funded $1.2 million in technical efforts with HBCU/MIs, donated $17,000 in computers to Wilberforce University and $161,000 in Nuclear Magnetic Resonance equipment to Tuskegee University. He also serves on Technical Advisory Boards at Florida A&M and Tuskegee Universities.

In addition, Dr. Browning organized AFRL and AFMC participation in the annual conferences for the Black Engineer of the Year Awards and the National Society of Black Engineers. From this endeavor, the Air Force was able to create a database of scientist and engineer resumes, which they could reference for future employees.

The DIEEOC officially formed in the late 1960s when civilian personnel from Wright-Patterson AFB met to assist each other in the development and implementation of affirmative action projects and programs. The organization has grown to include representatives from state and city government, and the Dayton Board of Education. **@**

Air Vehicles Directorate honors civilian of the year

by Melissa Withrow, Air Vehicles Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The Air Force Research Laboratory's Air Vehicles Directorate (VA) named Mark Haney of the Advanced Structural Concepts Branch its civilian of the year for 2003. He was notified of the honor in April.

Haney was chosen from a group of qualified candidates for his leadership and job performance, self-improvement efforts, and community involvement. As program manager of a joint effort between VA, Northrop Grumman, and the B-2 System Program Office, Haney oversaw analysis of the B-2 aft deck to determine the root cause of its cracking.

During this time, Haney still managed to complete coursework for a doctorate and begin work on his dissertation entitled "Optimal In-situ Thermal/Structural Stiffener Design to Inhibit Thermal Buckling", which is based on his work with the B-2. @

Economy, Air Force to benefit from city-base alliance

as submitted by the Human Effectiveness Directorate

BROOKS CITY BASE, Texas — The Air Force Research Laboratory's' 311th Human Systems Wing recently joined forces with Brooks City-Base Foundation to improve San Antonio's economy, define new technologies to assist the Air Force in defending our country, and help develop new businesses at Brooks City-Base.

The Partnership Intermediary Agreement became official on April 12. It follows months of efforts between the Air Force and community leaders to create a formal relationship between the Air Force, San Antonio businesses, and universities as they collectively work toward creating new markets through technology transfer, commercialization and dual-use technologies. The alliance will enhance Air Force and DoD mission capabilities while helping to develop San Antonio-based high-tech science, engineering, medical and educational initiatives.

Dr. Hendrick Ruck, Director of the Air Force Research Laboratory's Human Effectiveness Directorate, said AFRL's assets at Brooks are directly linked to the city's growing life sciences industry and the future development of university programs, which includes the South Texas Life Sciences Institute shared by the University of Texas Health Science Center at San Antonio and the University of Texas at San Antonio.

"This partnership will allow the pursuit of common interests that will leverage resources to make our organizations stronger," he said. "This is sure to be a partnership that will build the life sciences capability for all of San Antonio and will help develop new businesses at Brook City-Base. **@**

Propulsion engineers honored with '40 Under 40' award

by Sarah Hubbard, Propulsion Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— The Dayton Business Journal has selected Dr. James Gord and Dr. Robert Hancock of the Air Force Research Laboratory as recipients of its seventh annual 40 Under 40 award.

The Business News established the 40 Under 40 program in 1998 with the help of Dean Investment Associates, with the goal of acknowledging the young leaders that achieve the highest within their business community.

Dr. Gord and Dr. Hancock, from AFRL's Propulsion Directorate, were among the final 40 selected to receive the award.

Dr. Gord graduated from Miami University with a bachelor's degree in chemistry and then went on to obtain a doctorate in analytical chemistry from Purdue University. He completed his education at the Joint Institute for Laboratory Astrophysics in Boulder, Colo., and is now working in the Propulsion Directorate's Combustion Branch. He is a principal research chemist and director of the Combustion and Laser Diagnostics Research Complex. He designs, develops and operates state-of-the-art facilities used to study combustion and fuel.

Dr. Hancock received master's and bachelor's degrees in mechanical engineering from Brigham Young University and a doctorate in mechanical engineering from the University of Illinois. He is now chief of the Combustion Branch in AFRL's Propulsion Directorate, where he oversees the activities of 59 people and directs a $10.7 million a year research program involving combustors, afterburners, pulsed detonation engines, laser diagnostics and emissions. **@**

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lasers and optical systems in and through the atmosphere. His research was a key factor in the decision to initiate the Airborne Laser theater missile defense weapon system program. The technologies he has demonstrated enable the use of ground-based lasers as anti-satellite weapons, and the ability to transfer data between satellites or reconnaissance aircraft and stations on the ground at rates of hundreds of gigabits per second. Dr. Fugate's research also has given warfighters the ability to inspect earth orbiting satellites from the ground with unprecedented resolution to maintain an awareness of U.S. military, scientific and commercial space assets as well as the intentions, capabilities and situations of foreign satellites.

Dr. Baker, the Directed Energy Directorate's chief scientist, was nominated in the Meritorious Senior Professional category for 33 years of unparalleled achievement in advanced weapons technology. Dr. Baker created revolutionary technologies that will make speed of light weapons a reality in the near term and maintain the United States' military technological superiority well into the new millennium, according to the award citation.

Dr. Carlson, the Chief Scientist for the Air Force Office of Scientific Research, earned the prestigious honor in the Meritorious Senior Professional category. He was recognized for his leadership role in defining the science and technology programs critical to the Air Force of 2020 in a report to Congress. The resulting visionary document, approved by the Secretary of Defense and Congress, provided six fundamental definitions of Air Force long-term challenges. Congress praised the report for its articulate and creative content. As an added endorsement, they wrote into law that this process be repeated every four to five years.

Dr. Garscadden, AFRL Propulsion Directorate's chief scientist, was nominated for the rank of Meritorious Senior Professional in recognition of his exceptional leadership, innovation, dedicated research, as well as his research in highly energized flows and applying the results to diverse Air Force weapon systems. Dr. Garscadden is renowned for his work in theoretical and experimental research in nonequilibrium plasmas and energized gas flows, lasers, laser-based processing of thin films, optical and mass spectroscopic measurements, and electron impact cross sections and their influence on electron transport data enabling significant advances in plasma technology.

Award officials said those winning this prestigious award are strong leaders, professionals and scientists who achieve results and consistently demonstrate strength, integrity, industry and a relentless commitment to excellence in public service.

Distinguished rank recipients receive a lump-sum payment of 35 percent of their base pay; meritorious rank recipients receive 20 percent of their base pay. All recipients receive a framed certificate signed by the president. **@**

Net Index

Due to the number of submissions we receive, some sections of *news@**afrl*** are available exclusively on-line. The on-line version of the newsletter allows users to view the AFRL corporate calendar, news releases generated by AFRL headquarters, operating instructions, L@b L@urels and Roundups sections.

The L@b L@urels section of the electronic newsletter is dedicated to members of Air Force Research Laboratory who receive awards and honors. The Roundups section of the electronic newsletter keeps Air Force Research Laboratory employees informed about contracts AFRL has awarded. Below is an index of articles one can find in each of these on-line sections.

Roundups

- **Ithaca firm awarded two-year $744,321 SBIR contract**
- **IF's Portable Interactive DataWall delivered to AFIT**
- **IF Directorate awards nearly $1.8M to universities**
- **IF Directorate awards $8.5 million research contract**

To view the full text of these and other articles visit the *news@afrl* page on the Internet at http://extra.afrl.af.mil/news/index.htm.
To submit L@b L@urels or Roundups from your directorate, send a query to AFRL Public Affairs at:

Jill.Bohn@afrl.af.mil

For more on these stories see news@afrl
http://www.afrl.af.mil/news.

IF Directorate honored for small business contracting

by Francis L. Crumb, Information Directorate

ROME, N.Y. — Four members of the Air Force Research Laboratory Information Directorate staff, as well as a representative of the federal Small Business Administration, will be honored in May with the Air Force's Outstanding Contribution to the Small Business Program by a Contracting Team Award.

Receiving awards during ceremonies at the Pentagon will be: Janis Norelli, the directorate's small business specialist; Charles Flynn, a program manager in the Information and Intelligence Exploitation Division; Renee Arcuri and Alice Colasanti of the directorate's Contracting Division; and Ernest Ponton, business opportunity specialist in the Small Business Administration's Richmond, Va., office.

Last month, the four were presented with the 2003 Air Force Materiel Command Small Business Award for a team effort.

Team members were recognized for their efforts to take an urgent Homeland Security requirement and, in three months, made a direct, small business award of $24.9 million to Zel Technologies, LLC, of Hampton, Va. The five-year agreement, signed in May 2003, will provide for research and development, life cycle management, testing, fielding, and user familiarization of the Automated Assistance with Intelligence Preparation of the Battlespace software application. **@**